

ABSTRACT OF THE DISCLOSURE

Electronically tunable dielectric materials having favorable properties are disclosed. The electronically tunable materials include an electronically tunable dielectric phase such as barium strontium titanate in combination with at least two additional metal
5 oxide phases. The additional metal oxide phases may include, for example, oxides of Mg, Si, Ca, Zr, Ti and Al. The electronically tunable materials may be provided in bulk, thin film and thick film forms for use in devices such as phased array antennas, tunable filters and the like. The materials are useful in many applications, including the area of radio frequency engineering and design.